

REMARKS

This is intended as a full and complete response to the Office Action dated October 12, 2005, having a shortened statutory period for response set to expire on January 12, 2006. Please reconsider the claims pending in the application for reasons discussed below.

Claims 46 and 48-65 remain pending in the application and are shown above. Claims 47 and 53-59 have been cancelled by Applicants and claims 60-65 stand withdrawn by the Examiner. Claims 46-52 are rejected by the Examiner. Claims 47 and 48 are objected to. Claims 46, 48 and 51 are amended. Applicants submit that this amendment does not introduce new matter.

Reconsideration of the rejected claims is requested for reasons presented below.

Election/Restriction

The Examiner has withdrawn claims 53-65 from consideration as being directed to a non-elected invention. Claims 53-59 have been cancelled. Applicants respectfully traverse the restriction of claims 60-65.

The Examiner indicates that claims 60-65 are directed to a method for plating a metal onto a substrate and should be withdrawn because an electroless method is not an invention that was originally claimed. Applicants respectfully submit that no claim is directed to a method for electroless plating. Instead, claims 60-65 are directed to a method of plating, which may include electroplating, electroless plating and other plating methods. Claim 60 requires no material element additional to those required by claim 46 and claim 46 require all the limitations of claim 60. Thus, the method set forth in claim 60 is related to the method set forth in claim 46 as genus and species. Therefore, restriction of claims 60-65 from claims 46-52 is improper. Reconsideration of this restriction is respectfully requested.

Claim Objection

Claims 47-48 are objected to by the Examiner for informalities. Applicants submit that claim 47 has been cancelled and claim 48 has been amended as required by the Examiner. Withdrawal of this objection is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

Claims 46-52 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and as being incomplete for omitting essential steps, such omission amounting to a gap between the steps.

Applicants submit that a step of electroplating has been added to claim 46. Withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 46-47 and 49-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ting et al* (U.S. Patent No. 6,017,437, hereafter *Ting*) in combination with *Griego* (U.S. Patent No. 5,879,520, hereafter *Griego*).

Applicants respectfully traverse the rejection.

Ting teaches a processing chamber for depositing and/or removing material onto/from a semiconductor wafer when the wafer is subjected to an electrolyte and in an electric field (Abstract). *Ting* further teaches that the processing chamber has a low and high position for rinsing and depositing the wafer. However, as indicated by the Examiner, *Ting* does not teach or suggest catching rinsing agent with a second fluid receiving member.

Griego teaches an apparatus for electrodeposition of materials by centrifugal means (Abstract). *Griego* further teaches the apparatus having a rotating basin 74 that can align a drain port 75 to one of multiple return drains 72 distributed at the radius of the cell (column 3 lines 41-52, and Figures 2 and 4). However, *Griego* does not teach or suggest catching the electrolyte or rinsing agent with first and second peripheral catch cups positioned about a perimeter of the substrate support member, as set forth in the pending claims.

The combination of *Ting* and *Griego* does not teach, show or suggest a method for electroplating a metal onto a substrate plating surface comprising positioning the substrate plating surface face-up on a substrate support member, positioning the support member at a first vertical position in a processing cell, flowing an electroplating solution onto the substrate plating surface while rotating the substrate plating surface at the first vertical position, electroplating the metal on the substrate plating surface by applying a plating bias to the substrate, capturing the electroplating solution used in the electroplating process with a first peripheral catch cup positioned about a perimeter of the substrate support member, positioning the support member at a second vertical position in the processing cell, rinsing the substrate plating surface by flowing a rinsing agent to the substrate while rotating the substrate at the second vertical position, and capturing the rinsing agent with a second peripheral catch cup positioned about a perimeter of the substrate support member, as recited in amended claim 46, and claims dependent thereon.

Therefore, claims 46 and 49-52 are believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim 48 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ting* in combination with *Griego* as applied to claims 46-47 and 49-52 above, and further in view of *Wang et al* (U.S. Patent No. 6,391,166 B1, hereafter *Wang*).

Applicants respectfully traverse the rejection.

Ting and *Griego* are discussed above. The combination of *Ting* and *Griego* does not teach, show or suggest the subject matter set forth in claim 46, on which claim 48 is dependent.

Wang teaches an apparatus for plating a conductive film directly on substrate in a face down position (Abstract and Figure 3A). However, *Wang* does not teach, show or suggest the subject matter set forth in claim 46, on which claim 48 is dependent.

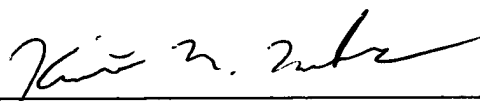
Therefore, claim 48 is believed to be in condition for allowance. Withdrawal of this rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



Keith M. Tackett
Registration No. 32,008
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)